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ABSTRACT

This report discusses the development and characteristics of the Prospective Student Inquiry Data File and Information System, which is used by the California State University at Chico (CSUC) as part of an effort to increase its student applicant population. Following a brief review of organizational background information, the report is divided into five sections which provide: (1) a detailed description of the purpose and function of the School Relations and Outreach Office, one of the university agencies responsible for student recruitment; (2) information on the Prospective Student Inquiry Data File--function, history, data sources, data entry schedule, specific file record elements, file processing, file output, user population, and output utilization; (3) a discussion of problems caused by the computer-incompatibility on campus that inhibits full use of the Prospective Student Information System; (4) a case study of efforts by the CSUC School of Agriculture and Home Economics to incorporate the Inquiry Data File into a specialized information system that would streamline its recruiting process; and (5) some projections and recommendations regarding the future of the Prospective Student Information System at CSUC. Appendices contain three different prospective student inquiry forms, a sample computer listing of an inquiry report for the School of Agriculture and Home Economics, a flow-chart for the prospective student inquiry response system, and a list of references. (JB)

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TECHNICAL REPORT ON THE PROSPECTIVE STUDENT INQUIRY DATA FILE AND INFORMATION SYSTEM AT CALIFORNIA STATE UNIVERSITY, CHICO

by

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TECHNICAL REPORT ON THE CSU, CHICO PROSPECTIVE STUDENT INQUIRY DATA FILE AND INFORMATION SYSTEM

I. Introduction

California State University at Chico (CSUC) is upgrading its student recruitment program in response to a dwindling applicant population and to the Chancellor's call to begin increasing enrollment over the next few years. One of the University agencies responsible for student recruitment is the School Relations and Outreach Office. Located in the University Information Center at the edge of campus, the School Relations and Outreach Office represents the University to the public. It is also responsible for gathering inquiry data from prospective students. To facilitate the storage and utilization of this valuable data, a computer program, known as the Prospective Student Inquiry Data File, has been created. This File forms the basis of an emerging Information System which provides the academic Schools, Departments, and various Student Affairs offices with mailing labels and summary lists of prospective University applicants.

This paper will present the development and the characteristics of the Prospective Student Inquiry Data File and Information System. We shall begin with a more detailed description of the purpose and function of the School

Relations and Outreach Office, and then consider the Inquiry Data File itself. This will then lead us into a discussion of the emerging Information System and the School of Agriculture and Home Economics' current plans to develop its portion of this larger Information System. The paper will conclude with some projections and recommendations regarding the future of the Prospective Student Information System at California State University, Chico.

II. School Relations and Outreach Office

The function of the School Relations and Outreach Office is to represent the University to prospective student applicants and to help generate sufficient numbers of qualified applicants for each academic term. School Relations and Outreach serves as the portal, or front door, through which the prospective student passes while investigating possible enrollment at CSU, Chico.

An important aspect of this function is to provide information regarding the University, the admission process, the academic programs, the various Student Affairs programs, and the necessary application forms to prospective students. This grou of activities is officially referred to as Pre-Admissions Counseling.

The Office also provides mailing labels and summary lists of prospective students to the academic Schools and Departments to be used to send out follow-up letters to each prospective applicant. This service will be discussed in detail in the next section. The School Relations and Outreach Office functions, therefore, as an information service, interfacing between a specific body of information and its user communities.[1] Regarding information services

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[1] F. Wilfred Lancaster, Information Retrieval Systems: Characteristics, Testing and Evaluation, p. 4.

Lancaster points out

> In its more active role, it is the function of the information service to bring documents or data to the attention of the user community . . . to meet the problem-solving or decision-making needs of the members of the user community, on a continuous basis . . . .[2]

In this capacity, the School Relations and Outreach Office oversees daily guided information tours on campus and conducts scheduled off-campus recruitment visits to high schools and community colleges around the state. The Office also handles requests for application information from people telephoning the campus, from postal inquiries, and from drop-in campus visitors.

About two years ago it was decided that the School Relations and Outreach Office needed a computerized system to store, process, and retrieve the data obtained from prospective students. It was foreseen that such a system could also serve the information needs of other offices and departments at CSU, Chico. From these early planning stages has come the Prospective Student Inquiry Data File.[3]

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[2] Ibid., p. 5.

[3] John R. Raquel, School Relations and Outreach Office, interviews, Spring Semester 1985.

III. Prospective Student Inquiry Data File

The purpose of this section is to study the Prospective Student Inquiry Data File. The following aspects of the Inquiry Data File will be discussed: function, history, data sources, data entry schedule, specific File record elements, File processing, File output, user population, and output utilization. The latter two topics, user population and output utilization, will provide a transition into the subsequent section on the Prospective Student Information System.

The function of the Prospective Student Inquiry Data File is to

> . . . store and make available critical data on all prospective applicants for admission to CSU, Chico who have either personally requested information about the university, have been referred by a third party, or who have asked one of the national college testing services to forward their entrance examination test scores to CSU, Chico.[4]

The File is essentially a computerized data base which stores, processes, selectively searches, and outputs information used to facilitate the ongoing recruitment process at the University.

The Data File program was developed during the preceding two years by personnel working within the School Relations and Outreach Office. The File was written utilizing the

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[4] School Relations and Outreach Office, "What is the Prospective Student Inquiry Data File?", CSU, Chico, 1985, (Mimeographed).

Statistical Package for the Social Sciences (SPSS) program and operates on the University's Cyber 170/720 computer. The project was accomplished with the aid of intern and work study talent at a minimum expense. The final product, the Prospective Student Inquiry Data File, is a credit to the talents and dedication of all those who have participated in its development.

Data regarding prospective applicants are obtained by the School Relations and Outreach Office from its own endeavors, from referrals, from the academic Departments and Schools, and from national college testing services. To record the pertinent data obtained during phone inquiries, the School Relations and Outreach Office uses the Telephone Inquiry form (see Appendix 1). When the inquiry is made in person, the Office uses the Prospective Student Inquiry Form (see Appendix 2). When the inquiries are obtained by the academic Schools or Departments, the data may be on special inquiry postcards, such as those used by the School of Agriculture and Home Economics (see Appendix 3). It has been estimated that the University receives between forty- and sixty-thousand inquiries per year.

The inquiry data are entered into the File using a Cyber terminal located in the University Information Center. Data entry occurs twice each day. Two clerks work a combined total of sixteen hours each week entering prospective student data.

Each File record is based on the person's legal name. As the individual's record is entered, if the legal name already exists in the File, the program will ask if the operator wants to update the information. Additional data required for each File record includes: date of inquiry, address, county of residence, Social Security number, telephone number, proposed starting date, anticipated entry class level, and proposed major and minor (indicated by the campus ZIP code of the academic department). The entry can also indicate the need for information on the following Student Services: Housing, Financial Aid, Scholarships, Disabled Student Services, Educational Opportunity Program, and Student Affirmative Action.

The File is processed each time a data entry session is ended. If the session is ended, but the day's entries are not completed, the "End Session" command is entered. When the day's last entry is complete, the Data Entry Clerk types in the "End Day" command. The "End Day" command directs the program to begin printing the daily Inquiry File Entry Report and the multiple sets of mailing labels. The Inquiry File Entry Report is a hardcopy record of the day's entries. The first set of mailing labels is used by the School Relations and Outreach Office to mail an information packet (containing the University's Prospectus, an admissions application, academic planning guides, and information on student services) to each prospective student. The additional sets of mailing labels are hand-collated

according to academic major, or to service information requested, and then routed to the appropriate offices.

Two other reports are produced by the Inquiry Data File: the Pre-run Inquiry Report and the Post-run Inquiry Report. The Pre-run Inquiry Report is a "printed copy of all persons in the file by proposed academic major/option whose proposed date of entry has not passed."[8] It is sorted by academic major/option and by date of inquiry. The Pre-run Report is produced on demand and is used by the academic Department to review its follow-up recruiting efforts. Appendix 4 is a partial copy of a Pre-run Inquiry Report.

The Post-run Inquiry Report is a list of previously contacted prospective students who have not yet formally applied for admission to the University. It is produced by running the Pre-run Inquiry Report against the Student Applicant File and deleting those individuals who have submitted applications. The Post-run Inquiry Report is sorted by academic major. It is produced in January, April, July, and October, or whenever it is requested. The Post-run Inquiry Report is useful when preparing to send out additional follow-up letters.

The user population of the Prospective Student Inquiry Data File includes the School Relations and Outreach Office, the academic Schools and Departments, and other Student Affairs offices. The mailing labels and Reports are

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[8] Ibid.

intended "to facilitate systematic follow-up contact with each prospective applicant."[6]

In summary, the Prospective Student Inquiry Data File allows the School Relations and Outreach Office to organize, store, process, and retrieve data regarding prospective applicants. The File output reduces the amount of labor required to address the information packets to each prospective student. The various Reports and additional sets of mailing labels are intended to be used by academic Departments and Student Affairs offices to facilitate correspondence with prospective students. Appendix 5 is a copy of the flow chart prepared by the School Relations and Outreach Office to depict this inquiry response process.[7]

The successful introduction of the Prospective Student Inquiry Data File has, as a side effect, increased the workload of the office personnel of some of the Schools, Departments, and Student Affairs Offices at the University. The task of sending follow-up letters to prospective students has created a bottleneck in the response system. This bottleneck is another reason that an enhanced information system is forming around the Inquiry Data File. The Prospective Student Information System is the subject of the next section.

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[6] Ibid.

[7] Ibid.

IV. Prospective Student Information System

The recent introduction of the Prospective Student Inquiry Data File has set the stage for the emergence of what, for purposes of this paper, shall be termed the Prospective Student Information System. The major element of this system is, of course, the Inquiry Data File which functions as the on-line clearing house for all prospective student inquiry data.

However, at present it is not possible for other organizations on campus to directly access, transfer, and manipulate Prospective Student Inquiry Data File records. This is limiting the use of the File's information and is also holding back the full development of the Prospective Student Information System. The problem basically results from a lack of compatibility between computer systems.

> As applied to information services, compatibility is a property that governs the extent to which two or more organizations can communicate and exchange data. . . . The achievement of compatibility is important because it is a pre-requisite to efficient co-operation, interconnection or resource sharing.*

The problem of compatibility is not an insurmountable one, however. As Lancaster and Smith indicate

> One way [to achieve compatibility] is to directly convert an output of one centre (A) into a form suitable for use as input to a second centre (B) as, for example, when a computer program is written to convert the record format of A into a format that can be operated on by B's

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* F. Wilfred Lancaster and Linda C. Smith, Compatibility Issues Affecting Information Systems and Services, 1983, (ERIC Document Reproduction Service, ED 241 018), ERIC p. 9.

> computer . . . . Convertibility can thus be considered an important means for establishing compatibility.[9]

The answer, then, is to create a conversion program that can convert the record format of the Inquiry Data File to a format usable on specific computers in other offices on campus. This program would establish compatibility and permit the access of Inquiry Data File records by these other computers. Lancaster and Smith further stress that

> The extent to which two information centres, A and B, can exchange data . . . depends on the answers to . . . questions such as: are programs available that will allow B's computer to read A's records in a useful way . . . ? The degree to which such questions can be answered affirmatively depends largely on how much compatibility exists between the two organizations in digital encoding, record formats, hardware, software and telecommunication conventions.[10]

Compatibility is the main obstacle standing in the way of the full emergence of the Prospective Student Information System. At this juncture the System operates as an undefined, primarily manual system in which hardcopy data is exchanged between the School Relations and Outreach Office and various other participating offices on campus. As compatibility is established, each participating office will be able to computerize its portion of the Information System and directly access the Prospective Student Inquiry Data File records.

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[9] Ibid.

[10] Ibid.

V. Case Study: School of Agriculture and Home Economics

The School of Agriculture and Home Economics has been actively recruiting new students for several years. It has, until recently, been using a totally manual system, but now the workload has become too much for the office staff. The advent of the Prospective Student Inquiry Data File coincided fortuitously with the School's increasing need for a more manageable and responsive recruiting system.

The Dean of the School, Dr. Lucas Calpouzos, is heading-up the School's effort to incorporate the Prospective Student Inquiry Data File into a specialized information system which will streamline its recruiting process. To accomplish this goal, Dean Calpouzos has gathered a group of students, faculty, and staff personnel from his School, the School of Communications, and the School Relations and Outreach Office.

This informal task force has been meeting on a regular basis throughout the past few months. At first, the effort was largely to understand the Prospective Student Inquiry Data File. The group then began to look for ways to capitalize on the File's information processing capabilities. In May of 1985 it was announced that a conversion program, allowing transfer of Inquiry Data File records to a desktop computer system to be located in the School of Agriculture and Home Economics' office, is being developed by a faculty member on the team.

At this point, three tasks remain to be accomplished in order to establish this networked information system. First, the School of Agriculture and HOme Economics needs to obtain the following items: a desktop business computer system, a modem, communications software, word processing and related software, and a letter-quality printer. Second, the conversion program, and the other software, need to be installed and debugged on the system. And third, School personnel need to be trained to operate the system.

Once this System is functional, and the users have been trained, School of Agriculture and Home Economics personnel can use it to write personalized follow-up letters to prospective students interested in the School's various degree options. The word processing program to be obtained will need to be able to manipulate stock paragraphs, add personalized comments, and then merge these elements with the prospective student's name and address. The resulting letters will then be printed on a letter-quality printer, saving long hours of typing time.

This is the current status of the School of Agriculture and Home Economics' project to create an information system based on the Prospective Student Inquiry Data File. The School of Communications is also planning to establish its own Prospective Student Information System, utilizing the technologies that are being developed for the School of Agriculture and Home Economics.

VI. Projections and Recommendations

The present efforts of the School of Agriculture and Home Economics, as well as the School of Communications and others, to network with the recently introduced Prospective Student Inquiry Data File, form the basis of the emerging Prospective Student Information System. Problems of hardware and software compatibility between dissimilar computer systems are currently being resolved. Additional hardware and software systems have yet to be obtained. Even before these new systems are in place, appropriate instructional technologies should be employed to train people to use them.

The potential of the emerging Prospective Student Information System is just beginning to be realized. Much of the data contained in the Prospective Student Inquiry Data File is not yet being fully utilized. In the future, for example, it will be possible to use the computerized System to determine which recruiting techniques are the most successful.

The value of the Prospective Student Inquiry Data File System is beginning to become apparent to the Schools and Departments seeking to increase their enrollment. School Relations and Outreach personnel recently began giving presentations to the Deans and the faculties of various Schools and Departments at the University in an effort to make them aware of the present and potential uses of the

Inquiry Data File.

The School of Agriculture and Home Economics is, at present, leading the other Schools at California State University, Chico in its effort to enhance its student recruiting effort through full utilization of the Inquiry Data File. Their System should provide an excellent testbed where unforeseen problems can be resolved. When networking different computer systems together, because of such issues as compatibility, one can expect some problems to arise.

> . . . there are the caveats that all computing designers face these days: the twin evils of looking back (few have the perspicacity to fully perceive the current technological changes and their effects on users) or waiting in paralysis for the patterns to emerge (the only pattern is change); and Murphy's Law, which is quite prevalent in a discipline where micron precision is critical but the discrepancy in so-called standards is rampant.[11]

Barring complete disaster, the School of Agriculture and Home Economics' system should eventually serve as a showcase to the other Schools, Departments, and offices of the University. California State Universtity, Chico has long been recognized for its innovative programs and faculty. The emerging Prospective Student Information System, which is an in-house "bootstrap" endeavor, is another example of this innovative characteristic.

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[11] Kenneth J. Klingenstein, Academic Support Systems: A Networked Approach, 1983, (ERIC Document Reproduction Service, ED 244 555), ERIC p. 12.

Appendix 1

TELEPHONE INQUIRY

FALL 85 ☐ SPRING 86 ☐

☐ FR ☐ SO ☐ JR ☐ SR ☐ GR

LEGAL NAME

ADDRESS

MAJOR

CITY STATE ZIP

MINOR

SOCIAL SECURITY NUMBER

☐ GENERAL PACKET	☐ EOP APPLICATION	☐ DSS INFORMATION	☐ TRANSFER BOOKLET
☐ HOUSING APPLICATION	☐ SAA INFORMATION	☐ VETERANS	☐ SUMMER SCHOOL
☐ OFF CAMPUS HOUSING INFO.	☐ SCHOLARSHIP APPL/INFO.	☐ MILITARY SCIENCE	☐ CATALOG ORDER FORM
☐ FINANCIAL AID APPLICATION	☐ RE-ENTRY	☐ CHILD CARE	

Appendix 2

PLEASE PRINT

SCHOOL RELATIONS AND OUTREACH
PROSPECTIVE STUDENT INQUIRY FORM

DATE _____

LEGAL NAME (LAST, FIRST, MIDDLE INITIAL) _____

ADDRESS _____

CITY _____ COUNTY _____ STATE _____ ZIP _____

PROPOSED DATE OF ENTRY AT CHICO ☐ FALL ☐ SPRING ____ YEAR

CLASS LEVEL ☐ FR ☐ SO ☐ JR ☐ SR

SOCIAL SECURITY NUMBER _____ AGE ____ SEX ____ AREA CODE - TELEPHONE NUMBER _____

PROPOSED MAJOR _____ PROPOSED MINOR _____

LAST HIGH SCHOOL ATTENDED _____ LAST COLLEGE ATTENDED _____

INTERESTED IN? ☐ EDUCATIONAL OPPORTUNITY PROGRAM ☐ STUDENT AFFIRMATIVE ACTION

☐ RE-ENTRY PROGRAM

NEED DISABLED STUDENT SERVICES? ☐ HEARING ☐ LEARNING ☐ PHYSICAL

☐ SIGHT ☐ OTHER _____

Rev. 4/85

Appendix 3

No
Postage Stamp
Necessary
If Mailed in the
United States

BUSINESS REPLY CARD
FIRST CLASS PERMIT #3, DAVIS, CALIF.
POSTAGE WILL BE PAID BY ADDRESSEE

School of Agriculture & Home Economics
California State University, Chico
Chico, CA 95926-9989

Please send me more information about CSU, Chico and the programs I have checked.

Name_____

Address_____
No. Street

_____
City State Zip

Telephone ( ) _____
Area Code

School now attending_____

FR SOPH JR SR
Circle One

Questions/Comments_____

General Information Desired
- ☐ Admission Requirements
- ☐ Admission Application Form
- ☐ **Scholarship Information**
- ☐ **University Farm Facility Information**

Area of Specialization

Agriculture
- ☐ Agricultural Business
- ☐ Agricultural Education
- ☐ Agricultural Engineering Technology
- ☐ Agricultural Science
- ☐ Agronomy (Crop Science Pattern)
- ☐ Agronomy (Pest Management Pattern)
- ☐ Animal Sciences
- ☐ Fruit Science
- ☐ Ornamental Horticulture
- ☐ Range Mangement
- ☐ Soils and Irrigation

BEST COPY AVAILABLE

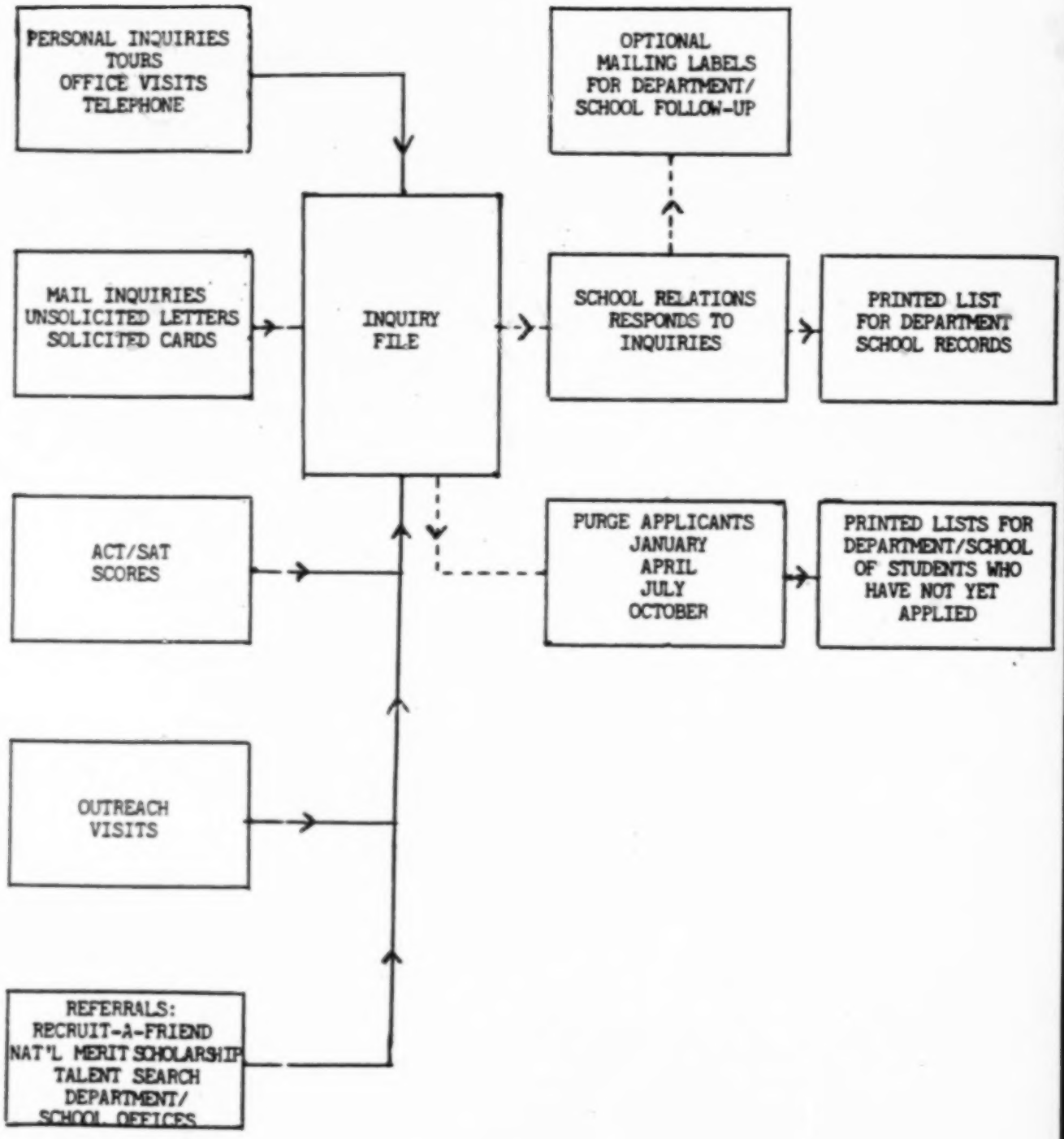
BEST COPY AVAILABLE

INQUIRY REPORT FOR
AGRICULTURE AND HOME ECONOMICS
PRE-RUN, FALL 1985

MAJOR	CONTACT DATE	NAME	STREET ADDR	CITY	ST	ZIP CODE	MAJOR	CLASS LEVEL
AG								
	8/14/84	[redacted] DREW	4G [redacted]	MENLO PARK	CA	94025	0 AG	FRESHMAN
	8/28/84	[redacted] MANTEL VAN	76 [redacted] ID AV	PASADENA	CA	91106	0 AG	FRESHMAN
	8/31/84	[redacted]	50 [redacted] N ST 403	SAN FRANCISCO	CA	94117	0 AG	FRESHMAN
	10/ 4/84	[redacted] COLE L.	RI [redacted] 68	QUINCY	CA	95971	0 AG	FRESHMAN
VALIDN								
AGRI								
	6/21/84	[redacted] ERNANDO	12 [redacted] CRK RD	VALLEY CENTER	CA	92082	0 AGRI	FRESHMAN
	7/17/84	[redacted]	15 [redacted] CARLO	MERRITT ISL.	FL	32952	0 AGRI	SOPHOMOR
	9/11/84	[redacted] DD	RT [redacted] 552	BUTTE CITY	CA	95920	0 AGRI	FRESHMAN
	9/19/84	[redacted] CHELLE	36 [redacted] DL DR.	SAN LUIS OBISP	CA	93401	0 AGRI	FRESHMAN
	9/26/84	[redacted] RT	SI [redacted] -BOX 847	YERMO	CA	92398	0 AGRI	FRESHMAN
	10/ 1/84	[redacted] ETTE	18 [redacted] M AVE.	QUINCY	MA	02170	0 AGRI	FRESHMAN
	10/ 2/84	[redacted] HRISTOPHER JOHN	RI [redacted]	WOODLAND	CA	95695	0 AGRI	FRESHMAN
	10/ 2/84	[redacted] STEPHEN	RT [redacted] 60 A8	WOODLAND	CA	95695	0 AGRI	FRESHMAN
	10/ 3/84	[redacted] TH ANN	PO [redacted]	COLUSA	CA	95932	0 AGRI	FRESHMAN
	10/ 3/84	[redacted] RISTI	90 [redacted] TREE DR	COLUSA	CA	95932	0 AGRI	FRESHMAN
	10/11/84	[redacted] VID RAYMOND	RT [redacted] 276	ORLAND	CA	95963	0 AGRI	FRESHMAN
	10/11/84	[redacted] IAM DAVID	RT [redacted] 441	ORLAND	CA	95963	0 AGRI	FRESHMAN
	10/11/84	[redacted] ED A	RI [redacted] 58	GLENN	CA	95963	0 AGRI	FRESHMAN
	10/11/84	[redacted] ETT	P.[redacted] 86	MONTAGUE	CA	96064	0 AGRI	FRESHMAN
	10/11/84	[redacted] N TONY	54 [redacted] OOD	LINDSAY	CA	93247	0 AGRI	FRESHMAN
	10/11/84	[redacted] ONEY DURELL	RT [redacted] 716	ORLAND	CA	95963	0 AGRI	FRESHMAN
	10/17/84	[redacted] ETTE	18 [redacted] FERRY	ANDERSON	CA	96007	0 AGRI	FRESHMAN
	10/17/84	[redacted] Y	P.[redacted] 28	MAXWELL	CA	95955	0 AGRI	FRESHMAN
	10/17/84	[redacted] N	46 [redacted] DK ROAD	JANESVILLE	CA	96114	0 AGRI	FRESHMAN
	10/17/84	[redacted] THAN	22 [redacted] TT ROAD	YUBA CITY	CA	95991	0 AGRI	FRESHMAN
	10/22/84	[redacted] GE	79 [redacted] YPTUS	CHINO	CA	91710	0 AGRI	FRESHMAN
	10/22/84	[redacted] K	MC [redacted] OX 844	DELEVAN	CA	95988	0 AGRI	FRESHMAN

Appendix 5

PROSPECTIVE STUDENT INQUIRY RESPONSE SYSTEM



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